

**Illnesses and Injuries Reported by California Physicians¹ Associated With²
Pesticide Exposure Summarized by Pesticide(s) and Type of Illness
2004**

Pesticide ³	Systemic/ Respiratory ⁴		Topical ⁴		TOTAL	
	Definite/ Probable	Possible	Definite/ Probable	Possible	Definite/ Probable	Possible
Organophosphates						
Acephate	1	0	0	0	1	0
Bensulide	0	0	0	1	0	1
Chlorpyrifos	0	0	1	0	1	0
DDVP	0	1	0	0	0	1
Diazinon	2	0	0	0	2	0
Malathion	29	1	0	0	29	1
Methamidophos	97	26	0	1	97	27
Mevinphos	0	1	0	0	0	1
N-Methyl Carbamates						
Methomyl	0	1	0	0	0	1
Oxamyl	0	1	0	0	0	1
Propoxur	0	1	0	0	0	1
Pyrethrins and Pyrethroids						
Bifenthrin	1	0	0	0	1	0
Cyfluthrin	1	6	1	0	2	6
Cyhalothrin	2	0	0	0	2	0
Cypermethrin	0	1	2	0	2	1
Deltamethrin	2	2	0	0	2	2
Esfenvalerate	1	1	0	1	1	2
Fenpropathrin	1	0	0	0	1	0
Permethrin	0	1	0	0	0	1
Other Pesticides						
Abamectin	0	1	0	0	0	1
Aluminum Phosphide	2	0	0	0	2	0
Bifenazate	0	0	1	0	1	0
Boric Acid	0	0	0	1	0	1
Calcium Hypochlorite	1	0	2	0	3	0
Captan	2	0	1	0	3	0
Chlorine	2	0	1	0	3	0
Chlorothalonil	0	0	2	0	2	0
Copper Naphthenate	0	0	0	1	0	1
Creosote	0	0	0	1	0	1
Cryolite	1	0	0	0	1	0

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Pesticide ³	Systemic/ Respiratory ⁴		Topical ⁴		TOTAL	
	Definite/ Probable	Possible	Definite/ Probable	Possible	Definite/ Probable	Possible
Cyanuric Acid	2	1	6	3	8	4
DEET	0	1	0	0	0	1
Dichlobenil	0	0	1	0	1	0
Disodium Octaborate Tetrahydrate	1	0	0	0	1	0
Fludioxonil	0	0	0	2	0	2
Glutaraldehyde	9	2	5	0	14	2
Glyphosate	2	7	7	1	9	8
Hydrogen Chloride	2	0	5	0	7	0
Hydrogen Cyanamide	0	0	0	1	0	1
Hydrogen Peroxide	0	0	0	1	0	1
Imidacloprid	0	1	0	1	0	2
Kathon	0	0	1	0	1	0
Lime-Sulfur	0	0	2	0	2	0
Magnesium Phosphide	2	0	0	0	2	0
Metam-Sodium	0	1	3	1	3	2
Methyl Bromide	2	1	2	0	4	1
Neem Oil	1	0	0	0	1	0
Oil of Peppermint	1	0	0	0	1	0
Oxyfluorfen	0	1	0	0	0	1
Ozone	2	0	0	0	2	0
Para-Dichlorobenzene	0	3	0	0	0	3
Paraquat	0	0	1	1	1	1
Pendimethalin	0	1	0	0	0	1
Peroxyacetic Acid	0	0	1	0	1	0
Petroleum Distillates	0	1	0	0	0	1
Petroleum Oil	0	0	0	1	0	1
Phenolic Disinfectants	1	0	5	1	6	1
Phosphine	13	0	0	1	13	1
Phosphoric Acid	1	0	0	0	1	0
Phthalaldehyde	0	0	2	0	2	0
Pine Oil	0	0	1	0	1	0
Pronamide	0	1	0	0	0	1
Propargite	0	0	0	1	0	1
Propiconazole	0	0	1	0	1	0
Pyriproxyfen	0	1	0	0	0	1
Quaternary Ammonia	2	2	57	9	59	11
Rimsulfuron	0	0	0	1	0	1
Sodium Chlorite	1	0	2	0	3	0
Sodium Hypochlorite	37	3	76	8	113	11

Pesticide ³	Systemic/ Respiratory ⁴		Topical ⁴		TOTAL	
	Definite/ Probable	Possible	Definite/ Probable	Possible	Definite/ Probable	Possible
Sodium Tetrathiocarbonate	0	0	1	0	1	0
Spinosad	0	1	0	0	0	1
Sulfur	0	3	3	7	3	10
Sulfur Dioxide	1	1	0	0	1	1
Sulfuryl Fluoride	0	0	1	0	1	0
Trichloromelamine	0	0	2	1	2	1
Triclopyr	2	1	0	0	2	1
Combinations of Antimicrobials	7	4	26	6	33	10
Combinations of Fumigants	0	0	0	1	0	1
Combinations of Fungicides	2	1	1	6	3	7
Combinations of Herbicides	22	7	5	2	27	10
Combinations of Insecticides Including ChE Inhibitor(s)	2	13	2	1	4	14
Combinations of Insecticides Without ChE Inhibitor(s)	11	57	3	3	14	60
Miscellaneous Combinations	34	28	5	10	39	38
Unknown Antimicrobials	0	3	1	1	1	4
Unknown Herbicides	0	1	0	0	0	1
Unknown Insecticides	4	3	3	1	7	4
Unknown Pesticides	1	0	0	3	1	3
TOTAL	310	194	242	81	552	276

¹ **Source:** California Department of Pesticide Regulation, Pesticide Illness Surveillance Program.

² **Associated With:** Includes cases classified as definitely, probably or possibly related to pesticide exposure

Definite : High degree of correlation between pattern of exposure and resulting symptomatology. Requires both medical evidence (such as measured cholinesterase inhibition, positive allergy tests, characteristic signs observed by medical professional) and physical evidence of exposure (environmental and/or biological samples, exposure history) to support the conclusions.

Probable : Relatively high degree of correlation exists between the pattern of exposure and the resulting symptomatology. Either medical or physical evidence is inconclusive or unavailable.

Possible : Some degree of correlation evident. Medical and physical evidence are inconclusive or unavailable.

³ **Type of Pesticide:** Pesticides listed on this table are grouped according to frequent inquiries received by DPR. Other pesticides are then listed in alphabetical order.

⁴ **Type of Illness:** Categorization of the type of symptoms experienced.

- Systemic : Any health effects not limited to the skin and/or eye. Cases involving multiple illness symptom types including systemic symptoms are included in the systemic category.
- Respiratory : Health effects involving any part of the respiratory tree.
- Topical : Health effects involving only the eyes and/or skin. This excludes outward physical signs (miosis and lacrimation) related to effects on internal bodily systems. These signs are classified under Systemic.

Whom to Contact:

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About the Pesticide Illness Surveillance Program Data

Pesticide-related illnesses have been tracked within the state of California for more than 50 years. The California Environmental Protection Agency, Department of Pesticide Regulation (DPR) maintains a surveillance program which records human health effects of pesticide exposure. The Pesticide Illness Surveillance Program (PISP) documents information on adverse effects from pesticide products, whether elicited by the active ingredients, inert ingredients, impurities, or breakdown products. This program maintains a database, which is utilized for evaluating the circumstances of pesticide exposures resulting in illness. This database is consulted regularly by staff who evaluate(s) the effectiveness of the DPR pesticide safety programs and recommend changes when appropriate.